U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
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SP 3-00

COAST GUARD SPECIAL PERMIT 3-00

This Special Permit is issued pursuant to 46 CFR 148.01-9 of the U.S. Coast Guard (USCG) Carriage of Solid Hazardous Materials in Bulk Regulations to authorize bulk shipments of Direct Reduced Iron, hot molded briquettes, under conditions as described herein. This permit does not relieve any shipper or carrier from compliance with any applicable requirement of 46 CFR 148 of the USCG Regulations, except as specifically provided for herein.

1. **BASIS** – American Metal & Steel International Corp. letter dated January 01, 2000.

2. **COMMODITY** - Hot briquetted iron (HBI).

3. **PROPER SHIPPING NAME** - DIRECT REDUCED IRON; briquettes, hot molded.

4. **REGULATION WAIVED OR AFFECTED** - 46 CFR 148.01-7.

5. **AUTHORIZED HOLDER -** American Metal & Steel International Corp, 10718 Carmel Commons Blvd. Suite 230 Charlotte, NC 28226.

6. **MODE OF TRANSPORTATION AUTHORIZED** - Cargo vessels and unmanned covered barges.

7. **CLASSIFICATION** - IMO: Material Hazardous Only in Bulk.

8. **PROPERTIES** -

   a. Hot Molded Briquettes may slowly evolve hydrogen after contact with water. Temporary self-heating may be expected after material handling in bulk. In addition, HBI reacts with oxygen and may deplete oxygen in the hold.

   b. Description:

      (1) HBI briquettes are materials emanating from a densification process whereby the HBI feed material is at a temperature greater than 650 ºC (1202 ºF), and having a density greater than 5.0 g/cm3.

      (2) The approximate maximum dimensions of HBI briquettes are 90-100 mm long, 80-130 mm wide and 20-50 mm thick. The approximate weight of a briquette is 0.5 -2.0 kg.

      (3) Cargoes of HBI briquettes contain up to 5% fines (under 4 mm).

9. **SPECIAL TRANSPORTATION REQUIREMENTS -**

a. General:

(1) The HBI must be loaded and unloaded at a designated waterfront facility that meets the requirements of 33 CFR 126.05(a) or a midstream anchorage acceptable to the cognizant Coast Guard Captain of the Port.

(2) The cognizant Coast Guard Captain of the Port must be informed at least 24 hours in advance of loading or unloading operations.

(3) The shipper shall certify that the material conforms with the requirements of this special permit and the IMO Code of Safe Practice for Solid Bulk Cargoes, including the limitation of the amount of fines (less than 4mm) to 5%.

(4) The loading operations must be supervised by a person familiar with the safety precautions and emergency procedures associated with handling HBI. The loading operators must be trained in the appropriate safety precautions and emergency procedures for handling HBI.

(5) The shipper or shipper's agent shall provide the master of the vessel or the person in charge of the tug or towing vessel with information on the safety precautions and emergency procedures associated with the shipment of HBI.

(6) Before loading the HBI, the hold of the vessel or cargo compartment of the barge shall be as dry as reasonably practicable, and free of residues of previous cargoes, loose dunnage, debris and combustible material of any kind.

(7) HBI shall not be loaded or transferred from one vessel or barge to another during periods of rain or snow. Unloading under all weather conditions is acceptable. During the voyage, HBI must be protected at all times from contact with water.

(8) HBI must not be loaded if the product temperature is in excess of 65°C (150°F).

(9) HBI must be loaded in such a manner as to minimize the concentration of fines in localized areas in the cargo.

(10) No smoking, burning, cutting, chipping or other source of ignition shall be allowed during loading and unloading or in proximity to a loaded hold or on or near barges containing HBI.

(11) After loading, the hatch covers must remain closed at all times until arrival at the unloading port, except as provided in paragraph 9.c(2).

(12) Precautions must be taken to prevent the penetration of hydrogen gas into adjacent cargo compartments, voids, bilges, and wells, and behind ceiling boards.

(13) Before any person enters a loaded cargo hold of a cargo vessel or the cargo compartment of a loaded barge, the compartment must be checked with an oxygen monitor to determine that there is adequate oxygen concentration.

(14) During unloading, a fine spray of fresh water may be used to control dust.

(15) Each bill of lading, shipping order, or other shipping paper issued in connection with HBI under the terms herein, must bear the notation "**USCG Special Permit 3-00**."

b. Cargo Vessels:

(1) The master of the vessel shall have a certification in writing issued by a competent person recognized by the National Administration of the country of shipment stating that the HBI, at the time of loading, is suitable for shipment.

(2) Bilges must be sift proof and kept dry during the voyage. Where possible, adjacent ballast tanks, other than double bottom tanks, must be kept empty. Wooden fixtures such as battens, etc. shall be removed. Weatherdeck closures must be inspected and tested for integrity.

(3) Boundaries of compartments where bulk HBI is carried must be resistant to fire and the passage of water.

(4) Adequate surface ventilation must be provided.

(5) HBI must be stowed separated from packaged hazardous cargoes which are classified as Class/division 1.4S (explosive substances or articles which present no significant hazard), Class 2 (flammable, poisonous, and nonflammable gases), Class 3 (flammable liquids), Class 4 (flammable solids and materials which are spontaneously combustible and materials which are dangerous when wet), Class 5 (oxidizers and organic peroxides), and Class 8 (corrosives - acids only); separated from bulk solid materials of Classes 4 and 5; and separated longitudinally by an intervening complete hold or compartment from Class 1 (explosive) materials other than division 1.4. [**Note**: "separated from" and "separated longitudinally by an intervening complete hold or compartment from" are defined in Sections 9.3.3 and 9.3.4 of the IMO Code of Safe Practice for Solid Bulk Cargoes.]

(6) If at any time a loaded cargo hold must be entered, the hold must be checked for adequate oxygen concentration. Before any person enters a hold containing HBI, the hold must be ventilated for a sufficient length of time to dissipate any accumulated gases.

(7) During loading and discharging operations, radar and RDF scanners must be adequately protected against dust.

(8) A copy of this permit must be on board the cargo vessel when transporting HBI.

c. Unmanned Barges:

(1) The unmanned covered barges used to transport HBI shall be fitted with vents adequate to provide natural ventilation.

(2) After loading, the hatches must be closed at all times until the HBI is unloaded. If at any time the cargo compartment of a loaded barge must be entered, the compartment must be checked for adequate oxygen concentration. Before any person enters a cargo compartment containing HBI, the hatches must be opened for a sufficient length of time to dissipate any accumulated gases.

(3) After unloading, the barge shall be cleaned thoroughly before loading a different cargo.

(4) When HBI is transported by barge, a copy of this permit must be on board the tug or towing vessel. When the barge is moored, the shipping paper and a copy of this Special Permit must remain on the barge in a suitable protected location.

10. **REPORTING REQUIREMENTS** - Any incident or casualty occurring while shipping under the terms of this permit shall be reported in accordance with 49 CFR 171.15, and a copy of the written report forwarded to the Commandant (G-MSO-3), U.S. Coast Guard, 2100 Second Street, S.W., Washington, DC 20593-0001 at the earliest practicable moment. In addition, a record of experience under the terms of this special permit including any casualties or difficulties encountered must be sent to the Commandant (G-MSO-3) upon request for renewal.

11. **EXPIRATION DATE** – April 30, 2004.

Authorized by:

April 11, 2000

R. F. CORBIN
Commander, U.S. Coast Guard
Chief, Hazardous Materials Standards Division
by direction of the Commandant

DATE